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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,356	07/04/2002	Chuen Huei Yang	NAUP0473USA	9624
27765	7590	10/22/2003		
NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE) P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER SIEK, VUTHE	
			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/064,356

Applicant(s)

YANG ET AL.

Examiner

Vuthe Siek

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This office action is in response to application 10/064,356 filed on 7/4/2002.

Claims 1-9 remain pending in the application.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant admitted prior art (AAPA) (Fig. 2).

4. As to claim 7, Fig. 2 shown dividing a semiconductor integrated circuit pattern, the pattern comprising a plurality of cells with same shape and a polygonal planar positioned between each cell, the polygon planar being composed of a plurality of unit figures and the unit figures being arranged sequentially and horizontally, the method comprising: depicting a division line (dividing line 16) to divide the unit figures of the polygonal planar into at least two regions (upper portion and bottom portion of the dividing line 16), and two adjacent unit figures being respectively divided into different regions (each of portion is vertically cut into different regions) (page 2, [0006]-[0007]).

5. As to claims 8-9, the unit figures comprise a triangle, rectangle, trapezoid and parallelogram; where dividing the semiconductor is used to convert circuit pattern data

into input graphic data of a writer, so the writer can use the input graphic data for drawing the circuit pattern on a photo mask or a substrate ([0006]-[0007]).

6. Claims 7-9 are rejected under 35 U.S.C. 102(a) as being anticipated by Rostoker et al., (6,407,434).

7. As to claim 7-9, Rostoker et al. teach forming a cell architecture including triangle, rectangle, trapezoid, parallelogram shapes and other shapes comprising partitioning or dividing a semiconductor integrated circuit pattern into unit figures of above shapes (col. 3, col. 85 line 1-67, col. 86 lines 1-34; exemplary Figs. 9, 10, 29, 43, 47-48).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being obvious over applicant admitted prior art (AAPA) (Fig. 2, [0006]-[0007]) in view of Rostoker et al. (6,407,434) or Sercu et al., "STUDY OF GRIDGING AND CELL-CELL INTERACTIONS IN THE METHOD OF MOMENTS ANALYSIS OF ARBITRARILY SHAPED PLANAR CIRCUITS," IEEE, 1993, PP. 753-756.

10. As to claims 1-6, Fig. 2 shown dividing a semiconductor integrated circuit pattern into unit figures comprising a triangle, rectangle, trapezoid and parallelogram, where the

dividing is used to convert circuit pattern data into input graphic data of a writer, so the writer can use the input graphic data for drawing the circuit pattern on a photo mask or a substrate (Fig. 2, [0006]-[0007]). The AAPA does not teach a dividing line would begin along a horizontal edge of the polygonal planar and when meeting with a vertex, the dividing line extending a vertical line segment from the horizontal edge to another horizontal edge. Rostoker et al. a cell architecture comprising polygon shape (triangle, rectangle, trapezoid, parallelogram and other shape) resulting from partitioning process (col. 85 line 1-67, col. 86 lines 1-34; exemplary Figs. 9, 10, 29, 43, 47-48). Sercu et al. also the same where a circuit is gridded up using rectangle and triangular cells (Page 753, 756). From above teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to dividing or partitioning a polygonal planar of a semiconductor pattern using a division line that begins along a horizontal edge of the polygonal planar, and when meeting with a vertex, said division line extending a vertical line segment from the horizontal edge to another in order to provide unit figures of triangle, rectangle, trapezoid and parallelogram as shown in cell architecture as taught by Rostoker et al. or Sercu to thereby facilitating transformation process in order to produce a photo mask (see col. 3 of Rostoker).

**Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vuthe Siek whose telephone number is (703) 305-4958. The examiner can normally be reached on M-F (6:30-4:00) 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (703) 308-1323. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Vuthe Siek  
Primary Examiner  
October 16, 2003

  
VUTHE SIEK  
PRIMARY EXAMINER